

University of Groningen

Removable rigid dressings versus soft dressings (letter)

Emmelot, C.H.; Geertzen, J.H.B.

Published in:
Prosthetics and Orthotics International

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2006

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):
Emmelot, C. H., & Geertzen, J. H. B. (2006). Removable rigid dressings versus soft dressings (letter). *Prosthetics and Orthotics International*, 30(1), 102-103.

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

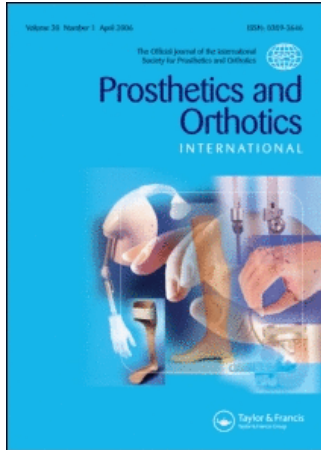
The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

This article was downloaded by:[University of Groningen]
On: 18 March 2008
Access Details: [subscription number 770299803]
Publisher: Informa Healthcare
Informa Ltd Registered in England and Wales Registered Number: 1072954
Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Prosthetics and Orthotics International

Publication details, including instructions for authors and subscription information:
<http://www.informaworld.com/smpp/title~content=t714595820>

Removable rigid dressings versus soft dressings

Online Publication Date: 01 April 2006

To cite this Article: (2006) 'Removable rigid dressings versus soft dressings',

Prosthetics and Orthotics International, 30:1, 102 - 103

To link to this article: DOI: 10.1080/03093640600554732

URL: <http://dx.doi.org/10.1080/03093640600554732>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.informaworld.com/terms-and-conditions-of-access.pdf>

This article maybe used for research, teaching and private study purposes. Any substantial or systematic reproduction, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

LETTER TO THE EDITOR

Removable rigid dressings versus soft dressings

Dear Editor,

It was with much interest we read the paper ‘Removable rigid dressings versus soft dressings: a randomized, controlled study with dysvascular, trans-tibial amputees’ by Anneke Deutsch et al. (2005). As proponents of rigid dressings after trans-tibial amputation we admire the attempt to perform a randomized clinical trial. The results of the study may attribute to a better understanding of optimal treatment after trans-tibial amputation. We would like to express some additional remarks about the way the study was set up and the conclusions drawn from the results.

The difference in outcome between the two groups is attributed to the dressing type: soft or rigid.

However, the trial is basically a multi-centre study performed in 2 hospitals. This indicates that there are at least 2 levels of research: hospitals (level 2) and patients (level 1). In the statistical analysis no multi-level analysis is performed probably because of the substantial amount of dropouts at the end of the study. For the analysis of wound healing only 31 patients (62%) were included. The hospital environment may have a considerable impact on the outcome of the study. The authors do not provide information about the number of patients treated in each hospital. Additionally, between the hospital level and patient level, the level of the surgeon is present when for each hospital different surgeons performed the amputations. No information about the number of surgeons is provided.

Remarkably, the authors performed the statistical analysis with a one-sided significance level based on the assumption that the rigid dressing reduces time of wound healing and time to prosthesis fit. Generally a two-sided significance test would be appropriate because the effects could be contrary to what is believed. Moreover, detailed information is missing about how the rehabilitation was programmed.

In particular, we can make the following further remarks:

Firstly, we believe that the number of sockets required over a 6-month period is an inappropriate measurement to be conclusive for volume control.

Secondly, comparing the outcome with the paper of Vigier et al. (1999) is inappropriate, because (besides from the use of a silicone liner) he treated open stumps by design (Nawijn et al. 2005).

Finally, other than the benefits no other effects have been mentioned. We have some indications that a rigid dressing with a pylon makes moving in bed more difficult, causing additional skin breakdown elsewhere (Van Velzen et al. 2005).

In our opinion, the lack of benefits of the rigid dressing method might be attributed to confounders, such as hospital, surgeon, post-amputation rehabilitation programme as mentioned above or inappropriate assessment instruments. Practically speaking, we believe that performing a randomized clinical trial in this sort of population is unfeasible.

The beneficial effect on wound healing has a relationship with a **rigid** dressing and not with its removable properties which are not needed for wound healing or for early mobilization.

Yours sincerely

Cornelis H. Emmelot MD PhD
Department of Rehabilitation
Isala Clinics
Zwolle
The Netherlands.

Jan H. B. Geertzen MD PhD
Center for Rehabilitation
University Medical Center Groningen
University of Groningen
The Netherlands.

References

- Deutsch A, English RD, Vermeer TC, Murray PS, Condous M. 2005. Removable rigid dressings versus soft dressings: A randomized, controlled study with dysvascular, trans-tibial amputees. *Prosthet Orthot Int* 29: 193–200.
- Nawijn SE, van der Linde H, Emmelot CH, Hofstad CJ. 2005. Stump management after trans-tibial amputation: A systematic review. *Prosthet Orthot Int* 29:13–26.
- Van Velzen AD, Nederhand MJ, Emmelot CH, Ijzerman MH. 2005. Early treatment of trans-tibial amputees: retrospective analysis of early fitting and elastic bandaging. *Prosthet Orthot Int* 29:3–12.
- Vigier S, Casillas JM, Dulieu V, Rouhier-Macer I, Dáthis P, Didier JP. 1999. Healing of open stumps after vascular below-knee amputation: Plaster cast socket with silicon sleeve versus elastic compression. *Arch Phys Med Rehabil* 80:1327–1330.